



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,917	12/10/2003	Teruaki Itoh	160-402	6712
23117 7590 04/17/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER . BEX, PATRICIA K	
			ART UNIT 1743	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 04/17/2007	DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/730,917

Applicant(s)

ITOH, TERUAKI

Examiner

P. Kathryn Bex

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/4/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/2003; 08/2005; 4/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "annular flange liquid-tightly pressed on an inner surface of the opening of the tube-shaped specimen container" in claim 1 and the "tapered insertion end" in claim 2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Art Unit: 1743

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

In addition, claim 1, line 15 recites, "...the annular flange is liquid-tightly pressed on an inner surface of the opening of the tube-shaped specimen container." This is not shown in the Figures. Rather, the annular flanges B engage the inner surface of the tube-shaped specimen container not the opening 11. For examination purposes, the Office has interpreted the claim to read that the annular flanges B engage the inner surface of the tube-shaped specimen container. However, clarification by Applicant is required.

Art Unit: 1743

Regarding claim 2, the phrase "like a parabolic antenna" renders the claim indefinite because the claim includes elements not actually disclosed (i.e., parabolic antenna), thereby rendering the scope of the claim unascertainable.

Claims 4, 5 and 6, recite "wherein the annular flange section includes a plurality of flange sections that are projected at regular intervals"; however, it is not clear from the claim where the flange sections are disposed at regular interval, e.g., along the cylindrical body?

Clarification of all the aforementioned is respectfully requested.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by C. J. Jesnig (US Patent No. 2,848,130).

Jesnig teaches a stopper for a tubular container 10. The stopper

Art Unit: 1743

comprises an inserting section 37, which is pushed into an opening of the container. The stopper also includes a closing section 56, 57 integrally connected to the inserting section. The closing section has a flat surface 16 (Fig. 3) that is brought into intimate contact with a rim of the opening (see Figs. 20, 21). The stopper of Jesnig includes an operating section 58 integrally connected to the closing section. The operating section is constructed and arranged for easy insertion and removal of the inserting section within the opening. The inserting section is formed of an elastically-deformable liquid-tight member (see col. 6, lines 38+). The inserting section includes a cylindrical body 33 having an parabolically-shaped annular flange 34 that projects outwardly therefrom to form a tapered insertion end. The flange presses against the inner surface of the tube-shaped specimen container to seal the container in fluid-tight manner.

With respect to claims 2 and 3, the annular flange section includes a plurality of notches 40 or channels 60 which allow the flange to readily collapse the diameter of the insertion section to assist in the placing the insertion section of the stopper into the container, see col. 6, lines 38-45.

8. Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Niermann et al. (US Patent No. 5,919,420), hereinafter Niermann.

Niermann teaches a stopper system for a tubular specimen container 100. The stopper comprises an inserting section 47 that is pushed into an opening of the container. The stopper also includes a closing section 80 that continues with the inserting section and has a flat surface that is brought into intimate contact with the rim

Art Unit: 1743

of the opening (see Figs. 6-10). The stopper of Niermann has an operating section 20, 40 (closing ball and socket) connected to the closing section 80 via clasp elements 97 (Fig. 10). Note: that instant claim 1 does not require the closing section and operating section to be formed as one component. Thus, the operating section may be constructed and arranged for insertion and removal of the inserting section within the opening, as taught in Niermann. The inserting section includes a cylindrical body 47 having a plurality of parabolically shaped (hemisphere) annular flanges 48 that project outwardly therefrom. Note the end of the cylindrical body has a tapered insertion end. The flange acts against the inner surface of the tube-shaped specimen container to seal the container in fluid-tight manner, that is, when ball 20 is in the closed position, see abstract.

With respect to claim 4, Niermann illustrates in Figs. 6-10, the plurality of flanges 48 disposed at regular intervals along the cylindrical body in order to achieve an enhanced interlocked relationship with the test tube 100.

9. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Mathus et al. (US Patent No. 6,890,488), hereinafter Mathus.

Mathus teaches a stopper system for a tubular specimen container 12. The stopper comprises an inserting section 24, which is pushed into an opening of the container. The stopper also includes a closing section 26 that continues with the inserting section and has a flat surface that is brought into intimate contact with the rim of the opening (col. 3, lines 38-40; Fig. 16). The stopper of Mathus includes an

Art Unit: 1743

operating section 22 connected to the opening 32 of the closing section (Fig. 1A). Note: that instant claim 1 does not require the closing section and operating section to be formed as one component. Thus, the operating section may be constructed and arranged for insertion and removal of the inserting section within the opening, as taught in Mathus. The inserting section includes a cylindrical body having a plurality of annular flanges 42 that project outwardly therefrom to form a tapered insertion end. The flange acts against the inner surface of the tube-shaped specimen container to seal the container in fluid-tight manner.

With respect to claim 4, Mathus illustrates in Fig. 16 the plurality of flanges 42 disposed at regular intervals along the cylindrical body in order to achieve an enhanced interlocked relationship with the test tube 12, see col. 3, lines 34-37.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.



4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
12. Claims 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niermann et al. (US Patent No. 5,919,420) in view of Jesnig (US Patent No. 2,848,130).

The teachings of Niermann have been previously summarized, *supra*. Niermann does not explicitly teach the annular flanges having a plurality of notches in the concave side (claim 3). Additionally, Niermann does not teach the closing section and the operating section being formed of polypropylene resin integrally as one component (claim 7). However, Niermann does illustrate the inserting section and closing section being integrally formed (Figs. 6-10).

Jesnig has been also summarized above. Jesnig teaches a stopper including, *inter alia*, an inserting section. The inserting section has a cylindrical body 33 with a parabolically-shaped annular flange 34 that projects outwardly therefrom to form a tapered insertion end. The flange presses against the inner surface of the tube-shaped specimen container to seal the container in a fluid-tight manner. Moreover, the annular flange section of Jesnig includes a plurality of notches 40 and channels 60 that readily collapse the diameter of the insertion section to assist in the placing the insertion section of the stopper into the container, see col. 6, lines 38-45.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the claimed invention to have included in the flange of Niermann a plurality of notches, as taught by Jesnig, in order to readily collapse the diameter of the insertion

Art Unit: 1743

section to assist in the placing the insertion section of the stopper into the container, see col. 6, lines 38-45.

With respect to the material of construction recited in claim 7 (i.e., polypropylene resin), it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to determine the optimum materials of construction based on considerations such as cost, ease of manufacture, reactions with the processing agents and/or maintaining the required reaction conditions with respect to temperature.

In addition, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to construct the closing section and the operating section as one component, within in the combined system of Niermann and Jesnig, since this will insure the closing section does not unexpectedly detach during the process of removing the stopper from the container. Furthermore, the courts have held that the use of a one piece construction instead of the structure disclosed in the prior art would be merely a matter of obvious engineering choice, see MPEP 2144.04 and *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

### ***Conclusion***

13. No claims allowed.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Bex whose telephone number is 571-272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.


Art Unit: 1743

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 12, 2007

pkb

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700